

## Hybrid Index Values (I-Values) Derived from Meristic Data for Populations of Putative Bonneville Cutthroat Trout in Utah - 2000

I-Values for each population were obtained by calculating a mean I-Value for individual fish based on five separate meristic character counts and then combining these individual means to obtain a gross score. The gross score is divided by the number of individuals submitted for meristic analysis to UDWR to obtain a final I-Value. I-Values range from 0 to 100. An I-Value of 0 would represent a pure cutthroat trout population. I-Values between 30 and 70 indicate hybridized populations. An I-Value of 100 would represent pure rainbow trout population

$$100 * [(U - C) / (R - C)] = \text{Hybrid Index Value}$$

Where U is the quantitative value for individual characters (i.e. basibranchial teeth, gill rakers, lateral line scales, scales above the lateral line, dorsal fin rays, anal fin rays, and pelvic fin rays) collected from each fish during meristic analysis. The value substituted for C is the accepted mean character value for the species in question, in this case Bonneville cutthroat trout. Values for R are accepted mean character values for the species suspected of hybridizing (i.e. rainbow trout) with the native species. If calculated values are below 0 or exceed 100 they are rounded to these numbers respectively to avoid a biased I-Value score for that individual.

Population:	Wimmer Ranch Creek	<u>Analysis Completed</u>
Water ID:	none (Spanish Fork Drainage)	12/12/00
I-Value:	<b>17.1</b>	
Comments:		
Population:	Peteetneet (Payson) Creek	12/07/00
Water ID:	none (Spanish Fork Drainage)	
I-Value:	<b>21.7</b>	
Comments:	Some individuals had lateral line scale counts that exceeded the range of Bonneville cutthroat trout.	
Population:	Red Butte Creek	01/17/00
Water ID:	IV AA 020	
I-Value	<b>14.2</b>	
Comments:	Lateral line scale counts from three individuals in from this population indicated possible hybridization with rainbow trout.	
Population:	Deep Creek-South Fork	12/14/00
Water ID:	IV AP 140	
I-Value:	<b>29.4</b>	
Comments:	Only five individuals were sent to UDWR for meristic analysis.	

Population:	Deep Creek-North Fork	12/15/00
Water ID:	IV AP 140	
I-Value:	<b>10.7</b>	
Comments:	Only five individuals were sent to UDWR for meristic analysis.	
Population:	Arthur Fork	01/07/00
Water ID:	IV AP 150A 02	
I-Value:	<b>17.0</b>	
Comments:	Lateral line scale counts for two individuals suggest possible hybridization with rainbow trout.	
Population:	Toll Canyon Creek	01/13/00
Water ID:	IV AP 150O 01	
I-Value:	<b>9.0</b>	
Comments:	Two individuals had lateral line scale counts slightly below the typical range for Bonneville cutthroat trout.	
Population:	Chalk Creek	11/08/00
Water ID:	IV AP 230 01	
I-Value:	<b>20.3</b>	
Comments:		
Population:	Huff Creek	11/15/00
Water ID:	IV AP 230B 01	
I-Value:	<b>23.1</b>	
Comments:	Six individuals had basibranchial teeth counts that were below the average for Bonneville cutthroat trout.	
Population:	Logan River	02/02/00
Water ID:	IV AQ 040A 07	
I-Value:	<b>9.8</b>	
Comments:	Basibranchial teeth counts were below average for three individuals from this population.	
Population:	Little Diamond Creek	10/31/00
Water ID:	V AK 020B 01	
I-Value:	<b>32.8</b>	
Comments:	Meristic data indicates hybridization with rainbow trout has occurred within this population.	
Population:	Cottonwood Creek	11/07/00
Water ID:	V AK 020G 01	
I-Value:	<b>29.3</b>	
Comments:	Possible hybridization with rainbow trout.	

Population: Clear Creek-Right Fork 12/19/00  
Water ID: V AK 040H 01  
I-Value: **12.8**  
Comments:

Population: North Creek-Upper 12/22/00  
Water ID: VI AB 070A  
I-Value: **13.0**  
Comments:

Population: North Creek-Middle 12/28/00  
Water ID: VI AB 070A  
I-Value: **25.4**  
Comments: Five individuals with below average basibranchial teeth counts